BioMap and Living Waters

Guiding Land Conservation for Biodiversity in Massachusetts

Core Habitats of Dartmouth

This report and associated map provide information about important sites for biodiversity conservation in your area.

This information is intended for conservation planning, and is not intended for use in state regulations.

Produced by:

Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries and Wildlife
Executive Office of Environmental Affairs
Commonwealth of Massachusetts

Produced in 2004

BioMap and Living Waters:
Guiding Land Conservation for Biodiversity in Massachusetts

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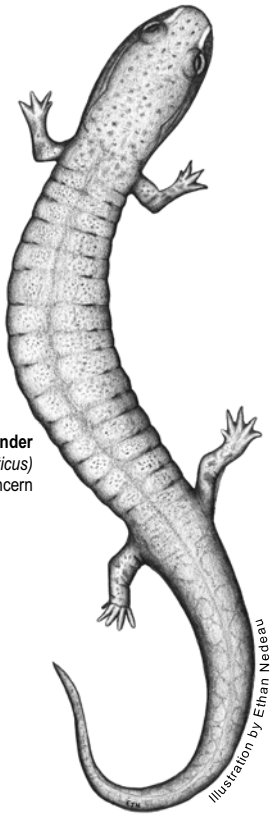
* Depending on the location of Core Habitats, your city or town may not have all of these sections.



Spring Salamander
(Gyrinophilus porphyriticus)
Species of Special Concern

Funding for this project was made available by the Executive Office of Environmental Affairs, contributions to the Natural Heritage & Endangered Species Fund, and through the State Wildlife Grants Program of the US Fish & Wildlife Service.

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For more information on rare species and natural communities, please see our fact sheets online at ***www.nhesp.org***

BioMap and Living Waters:
Guiding Land Conservation for Biodiversity in Massachusetts

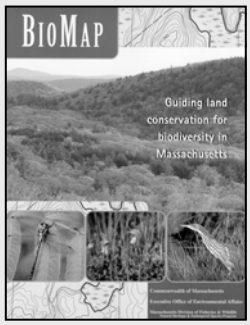
Introduction

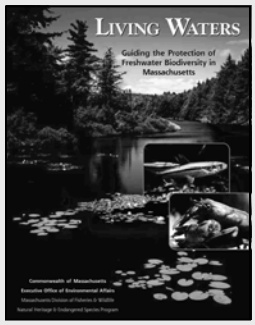
In this report, the Natural Heritage & Endangered Species Program provides you with site-specific biodiversity information for your area. Protecting our biodiversity today will help ensure the full variety of species and natural communities that comprise our native flora and fauna will persist for generatons to come.

The information in this report is the result of two statewide biodiversity conservation planning projects, ***BioMap*** and ***Living Waters***. The goal of the BioMap project, completed in 2001, was to identify and delineate the most important areas for the long-term viability of terrestrial, wetland, and estuarine elements of biodiversity in Massachusetts. The goal of the Living Waters project, completed in 2003, was to identify and delineate the rivers, streams, lakes, and ponds that are important for freshwater biodiversity in the Commonwealth. These two conservation plans are based on documented observations of rare species, natural communities, and exemplary habitats.

What is a Core Habitat?

Both BioMap and Living Waters delineate ***Core Habitats*** that identify the most critical sites for biodiversity conservation across the state. Core Habitats represent habitat for the state's most viable rare plant and animal populations and include exemplary natural communities and aquatic habitats. Core Habitats represent a wide diversity of rare species and natural communities (see Table 1), and these areas are also thought to contain virtually all of the other described species in Massachusetts. Statewide, BioMap Core Habitats encompass 1,380,000 acres of uplands and wetlands, and Living Waters identifies 429 Core Habitats in rivers, streams, lakes, and ponds.





Get your copy of the ***BioMap*** and ***Living Waters*** reports! Contact Natural Heritage at 508-792-7270, Ext. 200 or email natural.heritage@state.ma.us. Posters and detailed technical reports are also available.

Core Habitats and Land Conservation

One of the most effective ways to protect biodiversity for future generations is to protect Core Habitats from adverse human impacts through land conservation. For Living Waters Core Habitats, protection efforts should focus on the ***riparian areas***, the areas of land adjacent to water bodies. A naturally vegetated buffer that extends 330 feet (100 meters) from the water's edge helps to maintain cooler water temperature and to maintain the nutrients, energy, and natural flow of water needed by freshwater species.

In Support of Core Habitats

To further ensure the protection of Core Habitats and Massachusetts' biodiversity in the long-term, the BioMap and Living Waters projects identify two additional areas that help support Core Habitats.

In BioMap, areas shown as ***Supporting Natural Landscape*** provide buffers around the Core Habitats, connectivity between Core Habitats, sufficient space for ecosystems to function, and contiguous undeveloped habitat for common species. Supporting Natural Landscape was

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generated using a Geographic Information Systems (GIS) model, and its exact boundaries are less important than the general areas that it identifies. Supporting Natural Landscape represents potential land protection priorities once Core Habitat protection has been addressed.

In Living Waters, ***Critical Supporting Watersheds*** highlight the immediate portion of the watershed that sustains, or possibly degrades, each freshwater Core Habitat. These areas were also identified using a GIS model. Critical Supporting Watersheds represent developed and undeveloped lands, and can be quite large. Critical Supporting Watersheds can be helpful in land-use planning, and while they are not shown on these maps, they can be viewed in the Living Waters report or downloaded from www.mass.gov/mgis.

Understanding Core Habitat Species, Community, and Habitat Lists

What's in the List?

Included in this report is a list of the species, natural communities, and/or aquatic habitats for each Core Habitat in your city or town. The lists are organized by Core Habitat number.

For the larger Core Habitats that span more than one town, the species and community lists refer to the entire Core Habitat, not just the portion that falls within your city or town. For a list of all the state-listed rare species within your city or town's boundary, whether or not they are in Core Habitat, please see the town rare species lists available at www.nhesp.org.

The list of species and communities within a Core Habitat contains only the species and natural communities that were explicitly included in a given BioMap or Living Waters Core Habitat. Other rare species or examples of other natural communities may fall within the Core Habitat, but for various reasons are not included in the list. For instance, there are a few rare species that are omitted from the list or summary because of their particular sensitivity to the threat of collection. Likewise, the content of many very small Core Habitats are not described in this report or list, often because they contain a single location of a rare plant

Table 1. The number of rare species and types of natural communities explicitly included in the BioMap and Living Waters conservation plans, relative to the total number of native species statewide.

BioMap

	Species and Verified Natural Community Types	
Biodiversity Group	**Included in BioMap**	**Total Statewide**
Vascular Plants	246	1,538
Birds	21	221 breeding species
Reptiles	11	25
Amphibians	6	21
Mammals	4	85
Moths and Butterflies	52	An estimated 2,500 to 3,000
Damselflies and Dragonflies	25	An estimated 165
Beetles	10	An estimated 2,500 to 4,000
Natural Communities	92	> 105 community types

Living Waters

	Species	
Biodiversity Group	**Included in Living Waters**	**Total Statewide**
Aquatic Vascular Plants	23	114
Fishes	11	57
Mussels	7	12
Aquatic Invertebrates	23	An estimated > 2500

species. Some Core Habitats were created for suites of common species, such as forest birds, which are particularly threatened by habitat fragmentation. In these cases, the individual common species are not listed.

What does 'Status' mean?

The Division of Fisheries and Wildlife determines a status category for each rare species listed under the Massachusetts Endangered Species Act, M.G.L. c.131A, and its implementing regulations, 321 CMR 10.00. Rare species are categorized as Endangered, Threatened, or of Special Concern according to the following:

- ***Endangered*** species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts.
- ***Threatened*** species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range.
- ***Special Concern*** species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts.

In addition, the Natural Heritage & Endangered Species Program maintains an unofficial ***watch list*** of plants that are tracked due to potential conservation interest or concern, but are not regulated under the Massachusetts Endangered Species Act or other laws or regulations. Likewise, described natural communities are not regulated any laws or regulations, but they can help to identify ecologically important areas that are worthy of protection. The status of natural communities reflects the documented number and acreages of each community type in the state:

- ***Critically Imperiled*** communities typically have 5 or fewer documented sites or have very few remaining acres in the state.
- ***Imperiled*** communities typically have 6-20 sites or few remaining acres in the state.
- ***Vulnerable*** communities typically have 21-100 sites or limited acreage across the state.
- ***Secure*** communities typically have over 100 sites or abundant acreage across the state; however excellent examples are identified as Core Habitat to ensure continued protection.

Legal Protection of Biodiversity

BioMap and Living Waters present a powerful vision of what Massachusetts would look like with full protection of the land that supports most of our biodiversity. To create this vision, some populations of state-listed rare species were deemed more likely to survive over the long-term than others.

Regardless of their potential viability, all sites of state-listed species have full legal protection under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00). Habitat of state-listed wildlife is also protected under the Wetlands Protection Act Regulations (310 CMR 10.37 and 10.59). The ***Massachusetts Natural Heritage Atlas*** shows **Priority Habitats**, which are used for regulation under the Massachusetts Endangered Species Act and Massachusetts Environmental Policy Act (M.G.L. c.30) and **Estimated Habitats**, which are used for regulation of rare wildlife habitat under the Wetlands Protection Act. For more information on rare species regulations, see the *Massachusetts Natural Heritage Atlas*, available from the Natural Heritage & Endangered Species Program in book and CD formats.

BioMap and Living Waters are conservation planning tools and do not, in any way, supplant the Estimated and Priority Habitat Maps which have regulatory significance. Unless and until the combined BioMap and Living Waters vision is fully realized, we must continue to protect all populations of our state-listed species and their habitats through environmental regulation.

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Understanding Core Habitat Summaries

Following the BioMap and Living Waters Core Habitat species and community lists, there is a descriptive summary of each Core Habitat that occurs in your city or town. This summary highlights some of the outstanding characteristics of each Core Habitat, and will help you learn more about your city or town's biodiversity. You can find out more information about many of these species and natural communities by looking at specific ***fact sheets*** at www.nhesp.org.

Next Steps

BioMap and Living Waters were created in part to help cities and towns prioritize their land protection efforts. While there are many reasons to conserve land – drinking water protection, recreation, agriculture, aesthetics, and others – BioMap and Living Waters Core Habitats are especially helpful to municipalities seeking to protect the rare species, natural communities, and overall biodiversity within their boundaries. Please use this report and map along with the rare species and community fact sheets to appreciate and understand the biological treasures in your city or town.

Protecting Larger Core Habitats

Core Habitats vary considerably in size. For example, the average BioMap Core Habitat is 800 acres, but Core Habitats can range from less than 10 acres to greater than 100,000 acres. These larger areas reflect the amount of land needed by some animal species for breeding, feeding, nesting, overwintering, and long-term survival. Protecting areas of this size can be very challenging, and requires developing partnerships with neighboring towns.

Prioritizing the protection of certain areas within larger Core Habitats can be accomplished through further consultation with Natural Heritage Program biologists, and through additional field research to identify the most important areas of the Core Habitat.

Additional Information

If you have any questions about this report, or if you need help protecting land for biodiversity in your community, the Natural Heritage & Endangered Species Program staff looks forward to working with you.

Contact the Natural Heritage & Endangered Species Program:

by Phone *508-792-7270, Ext. 200*

by Fax: *508-792-7821*

by Email: *natural.heritage@state.ma.us*.

by Mail: *North Drive*
Westborough, MA 01581

The GIS datalayers of BioMap and Living Waters Core Habitats are available for download from MassGIS: www.mass.gov/mgis

Check out www.nhesp.org for information on:

- Rare species in your town
- Rare species fact sheets
- BioMap and Living Waters projects
- Natural Heritage publications, including:
  - Field guides
  - Natural Heritage Atlas, and more!

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BioMap: Species and Natural Communities

Dartmouth

Core Habitat BM1229

Natural Communities

Common Name	Scientific Name	Status
Acidic Graminoid Fen		Vulnerable
Acidic Shrub Fen		Vulnerable
Alluvial Atlantic White Cedar Swamp		Imperiled
Alluvial Red Maple Swamp		Vulnerable
Atlantic White Cedar Bog		Imperiled
Coastal Atlantic White Cedar Swamp		Imperiled
Coastal Plain Pondshore		Imperiled
Forest Seep Community		Secure
Maritime Oak - Holly Forest/Woodland		Critically Imperiled
Mixed Oak Forest		Secure
Pitch Pine - Oak Forest/Woodland		Secure
Pitch Pine - Scrub Oak Community		Imperiled
Ridgetop Chestnut Oak Forest/Woodland		Secure
Sandplain Heathland		Critically Imperiled
Scrub Oak Shrubland		Critically Imperiled

Plants

Common Name	Scientific Name	Status
Climbing Fern	*Lygodium palmatum*	Special Concern
Gypsywort	*Lycopus rubellus*	Endangered
Long-Leaved Panic-Grass	*Panicum rigidulum ssp pubescens*	Threatened
Long's Bulrush	*Scirpus longii*	Threatened
Philadelphia Panic-Grass	*Panicum philadelphicum*	Special Concern
Plymouth Gentian	*Sabatia kennedyana*	Special Concern
Rigid Flax	*Linum medium var texanum*	Threatened
Swamp Oats	*Sphenopholis pensylvanica*	Threatened

Tiny-Fruited Spike-Sedge	*Eleocharis microcarpa var. filiculmis*	Endangered
Weak Rush	*Juncus debilis*	Endangered

Invertebrates

Common Name	Scientific Name	Status
Attenuated Bluet	*Enallagma daeckii*	Special Concern
Barrens Buckmoth	*Hemileuca maia*	Special Concern
Chain Dot Geometer	*Cingilia catenaria*	Special Concern
Chain Fern Borer Moth	*Papaipema stenocelis*	Threatened
Frosted Elfin	*Callophrys irus*	Special Concern
Hessel's Hairstreak	*Callophrys hesseli*	Special Concern
New England Bluet	*Enallagma laterale*	Special Concern
Pale Green Pinion Moth	*Lithophane viridipallens*	Special Concern
Sensitive Rare Invertebrate		
Water-Willow Stem Borer	*Papaipema sulphurata*	Threatened

Vertebrates

Common Name	Scientific Name	Status
Eastern Box Turtle	*Terrapene carolina*	Special Concern
Four-toed Salamander	*Hemidactylium scutatum*	Special Concern
Marbled Salamander	*Ambystoma opacum*	Threatened
Northern Parula	*Parula americana*	Threatened
Spotted Turtle	*Clemmys guttata*	Special Concern

Core Habitat BM1373

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

Core Habitat BM1376

Natural Communities

Common Name	Scientific Name	Status
Coastal Atlantic White Cedar Swamp		Imperiled

Plants

Common Name	Scientific Name	Status
Plymouth Gentian	*Sabatia kennedyana*	Special Concern
Tiny-Fruited Spike-Sedge	*Eleocharis microcarpa var. filiculmis*	Endangered

Invertebrates

Common Name	Scientific Name	Status
Attenuated Bluet	*Enallagma daeckii*	Special Concern
New England Bluet	*Enallagma laterale*	Special Concern

Core Habitat BM1382

Natural Communities

Common Name	Scientific Name	Status
Coastal Atlantic White Cedar Swamp		Imperiled

Core Habitat BM1398

Natural Communities

Common Name	Scientific Name	Status
Acidic Graminoid Fen		Vulnerable
Alluvial Atlantic White Cedar Swamp		Imperiled
Alluvial Red Maple Swamp		Vulnerable
Red Maple Swamp		Secure

Plants

Common Name	Scientific Name	Status
Gypsywort	*Lycopus rubellus*	Endangered

Weak Rush	*Juncus debilis*	Endangered

Vertebrates

Common Name	Scientific Name	Status
Bird Migration Habitat		----------
Eastern Box Turtle	*Terrapene carolina*	Special Concern
Marbled Salamander	*Ambystoma opacum*	Threatened
Spotted Turtle	*Clemmys guttata*	Special Concern

Core Habitat BM1401

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

Core Habitat BM1405

Natural Communities

Common Name	Scientific Name	Status
Coastal Plain Pondshore		Imperiled

Plants

Common Name	Scientific Name	Status
Plymouth Gentian	*Sabatia kennedyana*	Special Concern

Invertebrates

Common Name	Scientific Name	Status
New England Bluet	*Enallagma laterale*	Special Concern

Core Habitat BM1429

Natural Communities

Common Name	Scientific Name	Status
Acidic Graminoid Fen		Vulnerable
Coastal Forest/Woodland		Vulnerable

Coastal Interdunal Marsh/Swale	Critically Imperiled
Estuarine Intertidal: Coastal Salt Pond	Imperiled
Estuarine Subtidal: Coastal Salt Pond	Imperiled
Kettlehole Wet Meadow	Vulnerable
Maritime Beach Strand Community	Vulnerable
Maritime Dune Community	Imperiled
Maritime Oak - Holly Forest/Woodland	Critically Imperiled
Maritime Shrubland Community	Vulnerable

Plants

Common Name	Scientific Name	Status
Grass-Leaved Ladies'-Tresses	*Spiranthes vernalis*	Threatened
Long-Leaved Panic-Grass	*Panicum rigidulum ssp pubescens*	Threatened
New England Blazing Star	*Liatris scariosa var. novae-angliae*	Special Concern
Northern Gama-Grass	*Tripsacum dactyloides*	Endangered
Sea Pink	*Sabatia stellaris*	Endangered
Sensitive Rare Plant		

Invertebrates

Common Name	Scientific Name	Status
Chain Dot Geometer	*Cingilia catenaria*	Special Concern
Coastal Heathland Cutworm	*Abagrotis nefascia benjamini*	Special Concern
Coastal Swamp Amphipod	*Synurella chamberlaini*	Special Concern
Drunk Apamea Moth	*Apamea inebriata*	Special Concern
Pale Green Pinion Moth	*Lithophane viridipallens*	Special Concern
Sensitive Rare Invertebrate		
Spartina Borer Moth	*Spartiniphaga inops*	Special Concern
Straight-lined Mallow moth	*Bagisara rectifascia*	Special Concern
Waxed Sallow Moth	*Chaetaglaea cerata*	Special Concern

Vertebrates

Common Name	Scientific Name	Status
Bird Migration Habitat		----------
Common Tern	*Sterna hirundo*	Special Concern
Diamondback Terrapin	*Malaclemys terrapin*	Threatened
Eastern Box Turtle	*Terrapene carolina*	Special Concern
Four-toed Salamander	*Hemidactylium scutatum*	Special Concern
Grasshopper Sparrow	*Ammodramus savannarum*	Threatened
King Rail	*Rallus elegans*	Threatened
Least Bittern	*Ixobrychus exilis*	Endangered
Least Tern	*Sterna antillarum*	Special Concern
Marbled Salamander	*Ambystoma opacum*	Threatened
Northern Harrier	*Circus cyaneus*	Threatened
Piping Plover	*Charadrius melodus*	Threatened
Spotted Turtle	*Clemmys guttata*	Special Concern

Core Habitat BM1444

Natural Communities

Common Name	Scientific Name	Status
Estuarine Subtidal: Coastal Salt Pond		Imperiled

Vertebrates

Common Name	Scientific Name	Status
Least Tern	*Sterna antillarum*	Special Concern
Piping Plover	*Charadrius melodus*	Threatened

Core Habitat BM1446

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

BioMap: Core Habitat Summaries

Dartmouth

Core Habitat BM1229

This large Core Habitat in and east of Fall River contains extensive, diverse, and important habitats for Massachusetts' rare plants and animals. The many natural communities of this Core Habitat range from wetlands, such as Coastal Atlantic White Cedar Swamps, to a dry upland Pitch Pine-Scrub Oak community. This Core Habitat is a significant site for several species of rare turtles and salamanders, as well as for invertebrate species of rare moths, butterflies, dragonflies, and damselflies. The habitat diversity here also supports several rare plant species, including the only two populations of the Endangered Tiny-Flowered Spike-Sedge in the state. This Core Habitat represents one of the best remaining opportunities to conserve an important, large, and minimally fragmented area of natural land in eastern Massachusetts.

Natural Communities

Throughout the seven towns included in this Core Habitat, there is excellent diversity of natural communities, ranging from forested swamps and bogs, to a dry upland Pitch Pine-Scrub Oak community. Of interest is the abundance of large and diverse Coastal Atlantic White Cedar Swamps of excellent quality. Coastal Atlantic White Cedar Swamps are acidic, low nutrient basin swamps dominated by Atlantic White Cedar in the overstory and a mixture of species in the understory. This community type typically occurs in basins on the Atlantic Coastal Plain. Of further note in this Core Habitat: the state's second-largest and very high-quality Alluvial Atlantic White Cedar Swamp, several high-quality Forest Seep communities, and a very good Acidic Graminoid Fen.

Plants

This large Core Habitat contains several rare plant species growing within a variety of habitat types. The only two known populations of the Endangered Tiny-Fruited Spike-Sedge in the state are found growing within sedge meadow habitat. Two high-quality populations of the Climbing Fern are found in swampy open woodlands. The globally rare Long's Bulrush is found within an acidic basin fen habitat. Two rare Panic-Grasses have colonized early-successional areas within a powerline. Clearly the diversity of habitats present within this Core Habitat contributes to the diversity of rare plant species found within this area.

Invertebrates

An extensive network of wetlands within this Core Habitat, including Coastal Plain ponds, bogs, and acidic swamps vegetated with Atlantic White Cedar and various shrubs, provide important habitat for a number of rare invertebrate species such as Hessel's Hairstreak butterfly, moths such as the Chain Fern Borer and the Pale Green Pinion moth, and rare dragonflies and damselflies such as the Attenuated Bluet damselfly and the New England Bluet damselfly. In addition, patches of pitch pine - scrub oak barrens habitat such as are found at Noquochoke Wildlife Management Area provide habitat for rare butterflies and moths such as the Frosted Elfin and the Barrens Buckmoth.

Vertebrates

This Core Habitat has some of the best potential of any in the state to support viable populations of Eastern Box Turtles, Spotted Turtles, Four-toed Salamanders, and Marbled Salamanders over the long-term. Northern Parula warblers may also be present here. The area also contains some of the most important forested wetland habitat for wildlife in the state, with both Atlantic White Cedar and Red Maple Swamps.

Core Habitat BM1376

This wetland-dominated Core Habitat centered on Noquochoke Lake supports rare damselfly species, such as the Attenuated Bluet and the New England Bluet. It also provides habitat for two rare species of plants including the Endangered Tiny-Fruited Spike-Sedge and the beautiful Plymouth Gentian.

Natural Communities

This Core Habitat contains part of a Coastal Atlantic White Cedar Swamp of moderate size and quality. Coastal Atlantic White Cedar Swamps are acidic, low nutrient basin swamps dominated by Atlantic White Cedar in the overstory and a mixture of species in the understory. This community type typically occurs in basins on the Atlantic Coastal Plain.

Plants

The Endangered Tiny-Fruited Spike-Sedge and the globally rare Plymouth Gentian are both found within the open, moist habitat types of this Core Habitat.

Invertebrates

Noquochoke Lake and surrounding boggy wetlands are important habitat for rare damselflies such as the Attenuated Bluet and the New England Bluet. Much of this Core Habitat is unprotected, and because it is large, unfragmented, and located both within a relatively undeveloped landscape and within dispersal distance of habitats just to the north, it represents an excellent conservation opportunity for the rare species inhabiting the area.

Core Habitat BM1382

Natural Communities

This Core Habitat contains part of a Coastal Atlantic White Cedar Swamp of moderate size and quality. Coastal Atlantic White Cedar Swamps are acidic, low nutrient basin swamps dominated by Atlantic White Cedar in the overstory and a mixture of species in the understory. This community type typically occurs in basins on the Atlantic Coastal Plain.

BioMap: Core Habitat Summaries

Dartmouth

Core Habitat BM1398

This large Core Habitat in Dartmouth and Westport includes a variety of forested swamps, seasonal pools, and relatively unfragmented uplands linked by riparian habitats. These diverse areas provide significant habitat for multiple populations of rare reptiles and amphibians, contain migration and breeding habitat for a variety of birds, and support two Endangered plant populations.

Natural Communities

This Core Habitat contains a variety of forested swamps, including a high-quality Alluvial Red Maple Swamp in Dartmouth. Alluvial Red Maple Swamps are a type of Red Maple Swamp that occurs in low areas along rivers and streams. Regular flooding enriches the soil with nutrients, resulting in an unusual set of associated trees and plants. Here the mature Alluvial Red Maple Swamp is within a well-buffered wetland complex that includes an Alluvial Atlantic White Cedar Swamp in very good condition and a large, but young, 300-acre Red Maple Swamp.

Plants

Two Endangered plant species grow within this Core Habitat: Weak Rush, which grows in a seasonal pond, and Gypsywort, which grows in an Alluvial Atlantic White Cedar Swamp.

Vertebrates

This large, many-lobed Core Habitat contains diverse wetlands, Potential Vernal Pools, riparian habitats, and upland forests with several unfragmented blocks of undeveloped land that are linked by riparian corridors. The Core Habitat encompasses significant habitat for multiple populations of Spotted Turtles, Eastern Box Turtles, Marbled Salamanders, and likely Four-toed Salamanders as well. The area also contains breeding habitat for a variety of forest and shrubland birds and important migration habitat near the coast for terrestrial birds.

Core Habitat BM1405

Natural Communities

This Core Habitat contains a small Coastal Plain Pondshore community with few human disturbances or invasive exotic plants directly affecting the pondshore; however, development and roads are abundant in the surrounding landscape. As well, this pond is in the zone of groundwater contribution for a public water supply well. Coastal Plain Pondshores are globally rare herbaceous communities of exposed pondshores with a distinct Coastal Plain flora. Water levels change with the water table, typically leaving an exposed shoreline in late summer where many rare species grow.

Plants

The beautiful and globally rare Plymouth Gentian can be found along the shores of Cedar Lake.

Invertebrates

Cedar Dell Lake is habitat for the New England Bluet damselfly. This Core Habitat is relatively small, but is located within dispersal distance of other habitats for the New England Bluet, most notably Core Habitats in Dartmouth and Fall River. This Core Habitat appears to be unprotected.

BioMap: Core Habitat Summaries

Dartmouth

Core Habitat BM1429

This large Core Habitat contains a number of high-quality coastal communities in Westport and Dartmouth. These diverse habitats support many rare insect species, including those of tiger beetles and moths, as well as two healthy populations of the rare New England Blazing Star. The area is important because it contains coastal waterbird breeding sites, wetland bird breeding habitat, bird migration habitat, as well as significant habitat for a variety of rare reptiles and amphibians. Parts of this Core Habitat are on protected land, and further conservation of its unprotected areas will help ensure the long-term viability of the rare species found here.

Natural Communities

This Core Habitat contains a great diversity of high-quality coastal communities. It includes a 1 kilometer windswept, Maritime Dune system, supporting an excellent variety of Coastal Interdunal Marsh vegetation between the dunes. The Maritime Dune community type consists of patches of herbaceous plants interspersed with areas of bare sand and shrubs. It occurs on windswept dunes within the salt spray zone, and often grades into shrubland or woodlands on more sheltered back dunes. Here a high-quality and disturbance-free Maritime Shrubland and Maritime Oak-Holly Forest border this dune system.

Plants

Maritime dunes support two healthy populations of the New England Blazing Star (Species of Special Concern), a plant which was historically far more common in Massachusetts.

Invertebrates

This large area includes a diversity of habitats that are home for many rare Coastal Plain invertebrates, including tiger beetles and at least seven state-listed species of moths. For example, maritime shrublands and grasslands are habitat for moths such as the Coastal Heathland Cutworm and the Chain Dot Geometer, while salt marshes are inhabited by the Spartina Borer moth and the Straight-lined Mallow moth. In addition, coastal swamps within this Core Habitat are habitat for the Coastal Swamp Amphipod.

Vertebrates

This Core Habitat contains significant habitat for Spotted Turtles, Eastern Box Turtles, Four-toed Salamanders, and Marbled Salamanders. This Core Habitat also provides migration habitat near the coast for both terrestrial and wetland birds, including a small cattail-dominated freshwater wetland near the mouth of the Slocums River, which provides habitat for Least Bitterns, Soras, Virginia Rails, Green Herons and Great Blue Herons.

Part of this Core Habitat supports breeding Piping Plovers, Least Terns, and formerly, Common Terns. It is one of the most important sites in the state for breeding Piping Plovers, and much of their nesting habitat is protected as the Horseneck Beach State Reservation. Potential threats to nesting coastal waterbirds include habitat alteration and loss, human disturbance (including vehicles and dogs), and predation. Annual protection from these threats is needed.

Diamondback Terrapins and their nests have been observed within Allens Pond and Slocums River. This species can travel from salt marsh to potential nesting sites from the Allens Pond side of Little Beach. This Core Habitat includes 5 km of Slocums River, which is lined with creeks and salt marshes. Land along Slocums River is relatively undeveloped; sandy agricultural areas could be managed to provide Diamondback Terrapin nesting habitat. Roads and debris from shellfish aquaculture are potential sources of mortality for this species here. Along the Westport River, the estuarine, salt marsh, beach, and dune areas are also potentially capable of supporting Diamondback Terrapins. Suitable habitat for foraging and nesting appears to be widespread along the branches of the Westport River system. Signs of nesting turtles were numerous within this Core Habitat in 2000. Some of this area is protected as Horseneck Beach State Reservation, but further protection of other suitable habitat is needed.

Core Habitat BM1444

Natural Communities

This Core Habitat contains a small Estuarine Subtidal Coastal Salt Pond community of moderate quality. This uncommon natural community is primarily found on the south and east shores of Cape Cod, Buzzards Bay, and the Islands. Coastal Salt Pond communities consist of vegetation surrounding coastal brackish ponds. These ponds are usually separated from the ocean by a sandspit. Their salinity varies and is influenced by opening and closing of the spit, although the hydrology here has been altered by human disturbances.

Vertebrates

Salter's Point and Pond in some years support breeding Piping Plovers and Least Terns. Potential threats to nesting coastal waterbirds include habitat alteration and loss, human disturbance, and predation. Annual protection from these threats is needed.

Living Waters: Species and Habitats

Dartmouth

Core Habitat LW001

Plants

Common Name	Scientific Name	Status
Featherfoil	*Hottonia inflata*	Watch Listed

Core Habitat LW237

Invertebrates

Common Name	Scientific Name	Status
Coastal Swamp Amphipod	*Synurella chamberlaini*	Special Concern

Core Habitat LW239

Invertebrates

Common Name	Scientific Name	Status
American Clam Shrimp	*Limnadia lenticularis*	Special Concern
Coastal Swamp Amphipod	*Synurella chamberlaini*	Special Concern

Core Habitat LW325

Invertebrates

Common Name	Scientific Name	Status
Coastal Swamp Amphipod	*Synurella chamberlaini*	Special Concern

Core Habitat LW326

Exemplary Habitats

Common Name	Scientific Name	Status
Fish Habitat		----------

Living Waters: Core Habitat Summaries

Dartmouth

Core Habitat LW001

A population of Featherfoil, an uncommon and unusual-looking aquatic plant with feathery leaves, is growing in this small pool in Dartmouth. Since this plant is rare in most surrounding states, we must safeguard the Massachusetts populations of this species to avoid further declines in New England.

Core Habitat LW237

This Core Habitat in Dartmouth supports the rare Coastal Swamp Amphipod, a small crustacean found in only five wetland systems in southeastern Massachusetts. More studies are needed to understand the life history and habitat requirements of this rare species.

Core Habitat LW239

This Core Habitat encompasses the Acushnet Cedar Swamp and Turner Pond. The Acushnet Cedar Swamp in New Bedford supports the rare Coastal Swamp Amphipod, a small crustacean found in only five wetland systems in southeastern Massachusetts. More studies are needed to understand the life history and habitat requirements of this rare species. Turner Pond is one of only three known sites for the rare American Clam Shrimp in Massachusetts. The Spinicaudate clam shrimp are very rare and fascinating aquatic invertebrates. The name "clam shrimp" was given to these tiny crustaceans because they have a carapace that closely resembles a clam shell.

Core Habitat LW325

This section of the Shingle Island River in Dartmouth supports the rare Coastal Swamp Amphipod, a small crustacean found in only five wetland systems in southeastern Massachusetts. More studies are needed to understand the life history and habitat requirements of this rare species.

Core Habitat LW326

This section of Destruction Brook provides spawning (breeding) habitats for Rainbow Smelt, an anadromous fish species that migrates from coastal waters into fresh waters to spawn. This stretch of the brook provides the fast-flowing, rocky habitats this fish requires for spawning. Once historically abundant, Rainbow Smelt has declined due to dams obstructing its passage, and excess sediment runoff degrading its spawning habitats. Permanently protecting the land adjacent to this Core Habitat will help maintain the quality of this key freshwater habitat.

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Please contribute on your Massachusetts income tax form or directly to the

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To learn more about the Natural Heritage & Endangered Species Program and the Commonwealth's rare species, visit our web site at: www.nhesp.org.